

# Horng-Long Cheng

## List of Publications by Year in descending order

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56  
papers

629  
citations

567281

15  
h-index

642732

23  
g-index

56  
all docs

56  
docs citations

56  
times ranked

945  
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of molecular structure and microstructure on device performance of polycrystalline pentacene thin-film transistors. <i>Applied Physics Letters</i> , 2007, 90, 171926.	3.3	44
2	Alignment of poly(3,4-ethylenedioxythiophene) polymer chains in photovoltaic cells by ultraviolet irradiation. <i>Journal of Materials Chemistry</i> , 2012, 22, 22409.	6.7	40
3	Influence of measuring environment on the electrical characteristics of pentacene-based thin film transistors. <i>Thin Solid Films</i> , 2004, 467, 215-219.	1.8	36
4	Raman spectroscopy applied to reveal polycrystalline grain structures and carrier transport properties of organic semiconductor films: Application to pentacene-based organic transistors. <i>Organic Electronics</i> , 2009, 10, 289-298.	2.6	33
5	Long-Term Operations of Polymeric Thin-Film Transistors: Electric-Field-Induced Intrachain Order and Charge Transport Enhancements of Conjugated Poly(3-hexylthiophene). <i>Macromolecules</i> , 2009, 42, 8251-8259.	4.8	30
6	Effects of solvents and vacancies on the electrical hysteresis characteristics in regioregular poly(3-hexylthiophene) organic thin-film transistors. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	29
7	Controlling Polymorphic Transformations of Pentacene Crystal through Solvent Treatments: An Experimental and Theoretical Study. <i>Crystal Growth and Design</i> , 2010, 10, 4501-4508.	3.0	29
8	Importance of Disordered Polymer Segments to Microstructure-Dependent Photovoltaic Properties of Polymerâ€“Fullerene Bulk Heterojunction Solar Cells. <i>Journal of Physical Chemistry C</i> , 2011, 115, 15057-15066.	3.1	28
9	Manipulating the ambipolar characteristics of pentacene-based field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1823.	5.5	28
10	Light sensing in photosensitive, flexible n-type organic thin-film transistors. <i>Journal of Materials Chemistry C</i> , 2014, 2, 626-632.	5.5	27
11	Electron transport properties in fluorinated copperâ€“phthalocyanine films: importance of vibrational reorganization energy and molecular microstructure. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2098.	2.8	23
12	Spontaneous Formation of an Ideal-Like Field-Effect Channel for Decay-Free Polymeric Thin-Film Transistors by Multiple-Scale Phase Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 16486-16494.	8.0	16
13	Efficient hybrid organic/inorganic photovoltaic cells utilizing n-type pentacene and intrinsic/p-type hydrogenated amorphous silicon. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 2407-2411.	6.2	15
14	Nanoimprinting-induced efficiency enhancement in organic solar cells. <i>Applied Physics Letters</i> , 2011, 99, 183108.	3.3	15
15	New Pentacene Crystalline Phase Induced by Nanoimprinted Polyimide Gratings. <i>Journal of Physical Chemistry C</i> , 2012, 116, 8619-8626.	3.1	15
16	High-response organic thin-film memory transistors based on dipole-functional polymer electret layers. <i>Organic Electronics</i> , 2015, 26, 359-364.	2.6	15
17	Synergistic Effects of Binary-Solvent Annealing for Efficient Polymerâ€“Fullerene Bulk Heterojunction Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 18967-18976.	8.0	13
18	A nanoscale study of charge extraction in organic solar cells: the impact of interfacial molecular configurations. <i>Nanoscale</i> , 2015, 7, 104-112.	5.6	13

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19	Polymer bilayer films with semi-interpenetrating semiconducting/insulating microstructure for field-effect transistor applications. <i>Soft Matter</i> , 2011, 7, 11103.	2.7	12
20	Highly energy-efficient and air-stable organic transistors by an ultrathin hybrid dielectric with large internal voltage generation. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7752-7760.	5.5	12
21	In Situ Formation of Au-Glycopolymer Nanoparticles for Surface-Enhanced Raman Scattering-Based Biosensing and Single-Cell Immunity. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 52295-52307.	8.0	12
22	Gate field induced ordered electric dipoles in a polymer dielectric for low-voltage operating organic thin-film transistors. <i>RSC Advances</i> , 2013, 3, 20267.	3.6	11
23	Effective oxygen plasma treatment on indium tin oxide electrode to improve organic solar cell efficiency. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 369-372.	1.8	10
24	Controlling carrier trapping and relaxation with a dipole field in an organic field-effect device. <i>RSC Advances</i> , 2016, 6, 77735-77744.	3.6	10
25	Reformation of conjugated polymer chains toward maximum effective conjugation lengths by quasi-swelling and recrystallization approach. <i>Soft Matter</i> , 2011, 7, 351-354.	2.7	9
26	Enhancing functionalities of organic ultraviolet-visible phototransistors incorporating spiropyran-merocyanine photochromic materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22522-22532.	10.3	9
27	Application of nanoimprinting technology to organic field-effect transistors. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	8
28	Characterization of a CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> perovskite microwire by Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 288-296.	2.5	8
29	Charge transfer highways in polymer solar cells embedded with imprinted PEDOT:PSS gratings. <i>RSC Advances</i> , 2014, 4, 58342-58348.	3.6	6
30	Enhanced and Anisotropic Charge Transport in Polymer-Based Thin-Film Transistors by Guiding Polymer Growth. <i>Crystal Growth and Design</i> , 2017, 17, 629-636.	3.0	6
31	The influence of dual-carrier recombination and release on electrical characteristics of pentacene-based ambipolar transistors. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	5
32	Initial time-dependent current growth phenomenon in n-type organic transistors induced by interfacial dipole effects. <i>Journal of Applied Physics</i> , 2015, 117, 104507.	2.5	5
33	Effects of interfacial tension and molecular dipole moment on the electrical characteristics of low-voltage-driven organic electronic devices. <i>Organic Electronics</i> , 2018, 59, 374-381.	2.6	5
34	Multifunctional Interfacial Layers from a One-Step Process for Effective Charge Capturing and Erasing in Low-Voltage-Driven Organic Thin-Film Transistors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1413-1420.	4.3	5
35	Polymorphic transformation induced by nanoimprinted technology in pentacene-film early-stage growth. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	4
36	Electrical stability study of polymer-based organic transistors in ambient air using an active semiconducting/insulating polyblend-based pseudo-bilayer. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1679-1688.	5.9	4

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37	Analysis of ultrathin organic inverters by using in situ grazing incidence X-ray diffraction under high bending times and low voltage. <i>Organic Electronics</i> , 2021, 88, 106002.	2.6	4
38	Laser-Induced Thermal Annealing of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Microwires. <i>Photonics</i> , 2021, 8, 30.	2.0	4
39	Room temperature ferromagnetism in Fe <sub>3</sub> O <sub>4</sub> nanoparticle-embedded polymer semiconductors. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 167, 110750.	4.0	4
40	Open-circuit voltage shifted by the bending effect for flexible organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15781-15787.	10.3	3
41	Memory characteristics of organic field-effect memory transistors modulated by nano-pâ€n junctions. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7501-7508.	5.5	3
42	Ultraviolet Light-Activated Charge Modulation Heterojunction for Versatile Organic Thin Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 45822-45832.	8.0	3
43	Air-Stable Crystalline Polymer-Based Field-Effect Transistors Fabricated by a Thermal Gradient Process. <i>Crystal Growth and Design</i> , 0, , .	3.0	3
44	48.4: Flexible Liquid Crystal Display Film by Plasma Alignment Method. <i>Digest of Technical Papers SID International Symposium</i> , 2007, 38, 1518-1521.	0.3	2
45	Co-Solvent Effects on the Microstructure-Related Photovoltaic Properties of Organic Solar Cells. <i>Energy Procedia</i> , 2012, 25, 76-81.	1.8	2
46	Temperature-dependent ambipolar electrical characteristics of pentacene-based thin-film transistors: The impact of opposite-sign charge carriers. <i>Organic Electronics</i> , 2015, 25, 74-78.	2.6	2
47	Temperature effects on the electrical properties of ambipolar organic complementary-like inverters. <i>Organic Electronics</i> , 2019, 72, 25-29.	2.6	2
48	Enhanced Functionality of Dual-Gate Organic Transistors Based on Semiconducting/Insulating Polyblend-Induced Asymmetric Charge Modulation Layers. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 47763-47773.	8.0	2
49	Ferromagnetism above Room Temperature in a Ni-Doped Organic-Based Magnetic Semiconductor. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 34962-34972.	8.0	2
50	Steady self-scrolling of graphene sheets upon the solvation status of adsorbed polyhexylthiophene. <i>Polymer</i> , 2021, 224, 123758.	3.8	1
51	Porous p-n junction-induced memory characteristics in low-voltage organic memory transistors. <i>Journal Physics D: Applied Physics</i> , 0, , .	2.8	1
52	In situ memory characteristics of thermal disturbance in low-voltage organic field-effect transistors. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 164, 110628.	4.0	1
53	Charge transport properties and memory effects in organic thin-film transistors using polymeric dielectrics. , 2008, , .		0
54	Study of PTCDI-C 12 H 25 -based organic thin film transistors with bottom -contact electrode. <i>Proceedings of SPIE</i> , 2010, , .	0.8	0

#	ARTICLE	IF	CITATIONS
55	PEDOT:PSS Transparent Electrode for ITO-Free Polymer:Fullerene Bulk-Heterojunction Organic Solar Cells. , 2019, , .		0
56	Modulation of interfacial properties for low voltage-driven organic thin-film transistors. , 2019, , .		0